preserve the signal content of the information signal.

56. (New) A digital implementation according to claim 55, wherein said first digital filter component comprises a spectral bandpass filter.

57. (New) A digital implementation according to claim 55, wherein the first digital filter component comprises an IIR filter.

58. (New) A digital implementation according to claim 55, wherein the first digital filter component comprises a cascade of IIR filters.

59. (New) A digital implementation according to claim 55, wherein said second digital filter component comprises an IIR filter.

REMARKS

Claims 7-9 and 49-59 remain in the application. In the prior application, claims 7-9 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over the prior art disclosed in Fig. 1 in view of Stauffer or Rasmussen et al. Claims 7-9 have also been rejected under 35 U.S.C. § 103(a) over the prior art disclosed in Fig. 1 in view of "Spice". There rejections are traversed and reconsideration is requested in view of the foregoing amendments and following remarks.

Each of the claims recite a system which is not anticipated nor made obvious by the cited prior art. Claims 7-9, and the claims dependent thereon, for example, describe the various recited components as being sampled at a sampling rate which is chosen so as to be equal to an integer multiple of the frequency of a pilot tone that can be added to the difference signal to identify the encoded signal to a receiver. New claim 55, and the claims dependent thereon, recite phase compensation, while new claim 60, and the claims dependent thereon, recite the comparable amplitude responses of the digital filter used in the digital implementation and the analog filters of the analog adaptive weighting system. These features are clearly not suggested by the analog system

of Fig. 1, nor any of the secondary references cited and applied by the Examiner.

With respect to the rejection of claims 7-9 under 35 U.S.C. § 103(a) as being unpatentable over the prior art disclosed in Fig. 1 in view of Stauffer or Rasmussen et al., the Examiner states that "the prior art is substantially the same as the claimed invention in claims 7-9 with the exception of using digital elements as the filter means, means for generating a first control signal (140, 142), gain control means (134) and means for generating a second control signal (126, 148) respectively", and that "it was well known in the art that a variable gain controlled filter (134 or 136) (amplifier) can be implemented as (sic) analog or digital form. The gain control signal can also be implemented using digital elements." The Examiner relies on Stauffer to teach that "a digital system will have a low cost if additional elements will be added later on, and a digital system will provide a more reliable performance (columns 2-3)", and that Ramussen et al teaches that "a digital filter will be more accurate since no precise voltage level is required, and no component drift vs. time and temperature." The Examiner concludes that while Stauffer and Ramussen et al. do not have the same circuitry as shown in the prior art, "they teaches (sic) the general advantages of having a digital system compared to its analogous (sic) counter part." It is respectfully submitted, however, that the invention as set forth in claims 7-9 and 49-64 are neither anticipated nor made obvious by applicant's Fig. 1 in view of Stauffer and Ramussen et al.

Clearly, the Fig. 1 embodiment is analog, and therefore there is no sampling rate. Stauffer and Ramussen et al do not disclose that a sampling rate is chosen so as to be equal to an integer multiple of the frequency of a pilot tone that can be added to a difference signal to identify the encoded signal to a receiver. In addition, the phase compensation as recited in claim 55, and the claims dependent thereon, (described, for example, in the specific implementation of Fig. 3 as static phase equalizer 228 of the original disclosure), and the amplitude responses of the digital filter components independent of the phase responses as recited in claim 60, and the claims dependent thereon, (described, for example, in the specific implementation of Fig. 4 as wideband band pass filter 448, and of Fig. 6 as spectral band pass filter 542) are clearly not provided in the analog implementation of Fig. 1, nor described in either Stauffer and Ramussen et al.

With regard to the rejection of claims 7-9 under 35 U.S.C. § 103(a) as being unpatentable

over the prior art shown in Fig. 1 in view of "SPICE", the Examiner correctly characterizes "SPICE" as a computer program for modeling an analog system with a digital simulation. The Examiner states that it would be obvious to one skilled in the art at the time the invention was made to modify the prior art analog system as shown in Fig. 1 by replacing the analog circuitry with an equivalent digital circuitry using "SPICE" to simulate the digital encoder. It is submitted, however, that while SPICE can be used to simulate the digital encoder of Fig. 1, for analytical purposes, such simulation would not, using currently available processing speeds, preserve the signal content of the audio signals as now recited in the claims, a limitation appearing in all of the pending claims.

Applicant is fully aware of the SPICE program. The program is used for simulating a circuit and analyzing the operation of the circuit. Applicant estimates that the current version of the SPICE program would require several seconds to process an input signal of duration on the order of milliseconds, and that the signal output would not be at a predetermined sample rate so as to preserve the signal content of the digital left and right channel audio signals. In fact, processing an audio program of, for example, a half hour television program, could take a day or two. This of course would not preserve the signal content of the digital left and right channel audio signals.

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Please charge any additional and necessary fees or any deficiency payments, or credit any overpayments to our Deposit Account No. 50-1133.

Respectfully submitted,

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